

Writing with Integrity

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Integrity:

From Latin *integer* (whole, complete)

What you

value
say
do

Writing with Integrity

Values? (implicit in all academic writing)

- honesty, *objectivity*, clarity, accuracy
 - completeness – no relevant information held back
 - authors are the ones who did the work
 - words, results, and ideas are authors' unless stated otherwise

Referencing:

- allows readers to examine original material
- demonstrates respect and gratitude to originator and acknowledges their influence
- gives credit where credit due
- may be a means to refute

Writing with Integrity

Values? (implicit in all academic writing)

- The work represents the author's synthesis and critical analysis of the subject

Writing with Integrity

Values? (implicit in all academic writing)

- published papers
- course essays
- theses
- grant applications
- other applications (grad school, scholarships, etc)
- ...

An ethical writer acknowledges the relevant contributions of others and the source of his/her ideas and information.

Roig, M. 2006. *Avoiding plagiarism, self-plagiarism, and other questionable writing practices: a guide to ethical writing.*
<https://ori.hhs.gov/avoiding-plagiarism-self-plagiarism-and-other-questionable-writing-practices-guide-ethical-writing>

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These perceived benefits have resulted in research into the structural and fire performance of concrete-filled hollow steel columns in several organizations around the world [1-8].

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At what point does collaboration become collusion and “fair use” become “plagiarism,” and how consistent are we across a department or campus in making these distinctions clear (Auer & Krupar 2001)?

Plagiarism of ideas:

- unintentional / intentional

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Johann Sebastian Bach came from a long line of musicians, and was a part of large extended family with musical talent. His uncle, Johann Christoff Bach, in particular was a well known musician, and introduced Johann Sebastian to the organ (Wolff, 1983).

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- even if unpublished

These conditions were chosen, as they are thought to be most representative of the real-life situation (D. Tsang, personal communication).

An ethical writer acknowledges sources by summarizing, paraphrasing appropriately, or enclosing in quotations marks.

Students hear about global responsibility while being educated in institutions that often invest their financial weight in the most irresponsible things. The lessons being taught are those of hypocrisy and ultimately despair.
- Orr, 1991

Students are being taught lessons of hypocrisy and despair because they hear about global responsibility while being educated in institutions that often invest their financial weight in irresponsible things (Orr, 1991).

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Universities have been known to preach global responsibility, all the while absolving themselves of any such responsibility in practice. What does this teach students? That hypocrisy is acceptable, and that the gap between ideals and reality is insurmountable (Orr, 1991).

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What about Materials/Methods or detailed technical descriptions?

Reverse transcription was performed using RT-PCR Master Mix (GE Healthcare). Briefly, 1 µg of total RNA was reverse-transcribed with random primers, and first strand reverse-transcribed cDNA was diluted 1:200 in water before use. Real-time PCR was carried out with LightCycler 480 SYBR Green I Master kit using a LightCycler 480 system (Roche Applied Science) as recommended by the manufacturer.

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What about Materials/Methods or detailed technical descriptions?

“Please note that verbatim copying of entire paragraphs (even in the “Methods” section) whether from other authors’ or one’s own prior work is never tolerated.”

Pharmaceutical Research

An ethical writer performs his/her own synthesis and analysis of the subject
OR
presents another’s with acknowledgment



Richter, D. (1982) *Opportunities for Women in Science* . In D. Richter (Ed.), *Women Scientists: The Road to Liberation* (p. 1).

The proportion of women engaged in scientific work varies greatly in different countries. In some places they form a large part of the effective work-force engaged in science teaching and research, while in other parts of the world there are practically no women scientists at all. There is still a vast amount of suffering in the world which could be prevented if more trained scientists were available in the areas where they are needed, and if the standard of scientific education of the general population could be raised. In considering what could be done to improve the situation, it appears that one of the most helpful things would be for more women to be brought into the scientific field and encouraged to take up a scientific career. Clearly traditional attitudes play an important part in determining the roles regarded as acceptable for women in any particular community, but other factors, including educational facilities and economic pressures, also play a part.

Different countries have varying degrees of female participation in the scientific workforce; there are many women scientists in some countries, but in others, there is virtually no participation by women in science teaching or research. Much suffering in the world could be prevented if more scientists were trained in needed areas, and the general level of public education in science were raised; the encouragement of women to take up scientific careers could be one of the most helpful ways to accomplish this. In addition to traditional attitudes, factors such as economics and the availability of educational facilities play a role in determining the acceptability of roles for women in science.

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Does the wording of the 2nd paragraph represent the writer's synthesis, or argument, on the importance of increasing women in science in some parts of the world?

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"You plagiarize when you use words so close to those in your source, that if your work were placed next to the source, it would be obvious that you could not have written what you did without the source at your elbow."


 Many of today's ills, particularly in the developing world, can be attributed in part to a lack of technological knowledge and infrastructure, and more generally a lack of scientific literacy in the population. An answer to this would seem to lie in countries' increasing their scientific workforces, yet in many countries, the workforce is drawn only from the 50% of the population that is male; women are effectively excluded from contributing to the welfare of their country in this manner. Of all the factors that have been proposed to contribute to this situation, we can discount one: that women lack the inherent ability to be successful scientists.

An ethical writer does not plagiarize
him/herself.*

Redundant publication

- "share the same hypothesis, data, discussion points or conclusions"
- the same paper for different courses

Salami publication ('least publishable unit')

- publishing parts of the same study in separate papers

Reuse of previously published text

*Unless certain conditions hold, eg, the duplication is made explicit, it is unpublished material by the same authors, etc

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“Researchers should avoid dividing a project into ‘least publishable units’, which misinforms the public on the importance and value of the research, and wastes time and money.”

- APA Publication Practices

“Deception is the key issue in all forms of self-plagiarism”

- The Lancet

When paraphrasing or summarizing other work,
an ethical writer reproduces the exact meaning
of the others’ ideas or facts

Smith et al, 2007:

We found that children who were breast-fed for more than 8 months were less likely to develop respiratory infections in their second year of life.

~~Breast-feeding for more than 8 months has been shown to improve immune function (Smith et al., 2007)~~

~~Breast-feeding for more than 8 months has been shown to reduce respiratory infections in the second year of life (Smith et al., 2007).~~

...consistent with Smith et al (2007), who found extended breast-feeding to be associated with reduced respiratory illness in the second year of life.

An ethical writer has read and understood all work cited.

The crystal structure of the nucleosome core particle was determined at 2.8 Å thirteen years ago⁸, and since then structures of nucleosome core particles containing histone proteins from different species and variant DNA sequences of the original human α -satellite sequence have provided structural insight^{9,10,11,12,13,14,15,16,17}

An ethical writer ensures that credit is given to those who first reported the finding or who first had the idea.

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An ethical writer reports evidence or ideas contrary to their own.

When describing one's own studies or supporting studies, any potential flaws or limitations must be described.

The preceding experiments establish a clear role for pRb in determining the fate of cells *in vivo* and *in vitro*.

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The preceding experiments establish a clear role for pRb in determining the fate of cells *in vivo* and *in vitro*. However, because this analysis was conducted in p53-deficient cells, it is unclear whether *Rb* alone is sufficient to determine this plasticity...

An ethical writer includes all information necessary for the research to be replicated.

Rat ES cells attach loosely to the feeders, so it is very easy to detach rat ES cells from the feeders by mechanical pipetting.

An ethical writer includes all information necessary for the research to be replicated (or applied to new contexts).

Transcripts were read another time with the intention to mark or underline meaning units as they applied to the question under investigation (Wertz, 2005). This process was accomplished through utilizing a word processing commenting tool on the transcripts. Next, meaning units were read and rewritten to capture their essential elements; this is done by free imaginative variation.

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During the first stage of analysis, concepts were labeled through the process of open coding (Strauss & Corbin, 1998). This stage involves breaking down interview transcripts into small, distinct parts, such as a word, a phrase, or a sentence or group of sentences. Concept labels were kept as close to the interviewee's own words as possible. "My mentor helped me learn" is an example of the concept generated from the statement, "He [my mentor] was receptive to helping me learn." [and became part of the general category "traits of a good mentor."]

An ethical writer does not exclude valid contrary results.

All statistical practices, interpretation and graphical or other representations are appropriate, honest and objective.

" [Good science requires] a specific, extra type of integrity that is [more than just] not lying, but bending over backwards to show how you're maybe wrong"

- Richard Feynman, Nobel Laureate

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contrary results.

All statistical practices, interpretation and
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An ethical writer is clear and concise
and does his/her best to help the readers understand

On the contrary to the previous reports, in one study, IL-6 did not change the cytotrophoblastic secretion of total hCG, but induced a dose-dependent stimulation of leptin secretion and increased the activity, but not the immunoreactivity, of the matrix metalloproteinases MMP-9 and MMP-2 which were involved in trophoblastic invasion during implantation [11].

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In contrast to previous reports [9,10], Meisser et al [11] showed that IL-6 did not not induce hCG production in cytotrophoblastic cells grown *in vitro*. IL-6, however, did induce the activity (but not levels) in these cells of two metalloproteinases involved in trophoblastic invasion, MMP-9 and MMP-2.

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We should listen to the intertextual, multivocalities of postcolonial others outside of Western culture in order to learn about the phallogocentric biases that mediate our identities.

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We should listen to the intertextual, multivocalities of postcolonial others outside of Western culture in order to learn about the phallogocentric biases that mediate our identities.

We should listen to the views of people outside of Western society in order to learn about the cultural biases that affect us.

Stephen Katz, "How to Speak and Write Postmodern"

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In academic writing -

"[T]he real risk-taking...is in precise statements and explicitly articulated arguments, since the point of such formality is to make errors maximally easy to spot. If you are afraid of being caught out, take refuge behind a smokescreen of vagueness and obscurity."

- Timothy Williamson, TLS March 20, 2009 "Plato goes pop"

An ethical writer follows norms of authorship and is conscious of (and reports as required) conflicts of interest.

International Committee of Medical Journal Editors:

Authorship credit should be based on:

- 1) substantial contributions to conception and design, acquisition of data, or analysis and interpretation of data;
- 2) drafting the article or revising it critically for important intellectual content; and
- 3) final approval of the version to be published.

Authors should meet conditions 1, 2, and 3.

Each author should have participated sufficiently in the work to take public responsibility for appropriate portions of the content.

An ethical writer follows norms of authorship and is conscious of (and reports as required) conflicts of interest.

APA:

An author is considered anyone involved with

- initial research design
- data collection and analysis
- manuscript drafting
- final approval

The following do not necessarily qualify for authorship: providing funding or resources, mentorship, or contributing research but not helping with the publication itself.

An ethical writer

- acknowledges the relevant contributions of others and the source of his/her ideas and information.
- acknowledges sources by summarizing, paraphrasing appropriately, or enclosing in quotations marks.
- does not self-plagiarize
- reproduces the exact meaning of the others' ideas or facts when summarizing.
- has read and understood all work cited.
- ensures that credit is given to those who first reported the finding or who first had the idea.
- reports evidence or ideas contrary to their own.
- describes any potential flaws or limitations.
- includes all information necessary for the research to be replicated.
- does not exclude valid contrary results
- ensures statistical practices, interpretation and graphical or other representations are appropriate, honest and objective
- is clear, concise and easily understood
- follows norms of authorship and reports/is conscious of conflicts of interest

Issues Specific to Theses

Your work: have you assigned copyright to the journal? If not, get permission from co-authors.
If yes, check to see if permission is required from journal.

Others' work (adapting or copying figures, tables): check to see if permission is required. NB: much material on websites is also protected by copyright. ALWAYS cite.

American Psychological Association journals:

Permission Is Required for the Following:

...Full articles or book chapters

Permission is **Not Required** for the Following:

...A maximum of **three figures** or tables from a journal article or book chapter

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Science: If you wish to take material from *Science's* journals or websites (**figures**, extracts, abstracts, even full-text articles) and incorporate them into new works (for example, newsletters, journal articles, book chapters, posters, presentations, reports, film, etc.), **you will need to obtain copyright permission.**

J. Biol. Chem.: Other parties are **welcome to copy**, distribute, transmit and adapt the work — at no cost and **without permission** — for noncommercial use **as long as they attribute** the work to the original source using the citation above.

Consequences of unethical practices

For others:

- undermining of research record
- loss of trust in scholarship by the public and scholarly community
- waste of resources and time
- possible harm to individuals
- tarnished reputation of institution, others involved
- other students are disadvantaged (academic work)
- other authors don't receive credit

Consequences of unethical practices

For yourself:

- retraction of paper
- loss of reputation
- feelings of guilt or shame
- student academic penalty: 0% in assignment or course
suspension
notation on transcript - "academic misconduct"
- rescinding of degree
- loss of position
- a return of research funds and/or ineligibility to apply for new grants for a period of time

Factors contributing to questionable practices

- competition
- lack of time
- need to convince reviewers and readers
- grants, graduation, promotion & tenure, etc
- financial or other conflicting interests
- difficulty with subject matter or skills
- lack of organization
- lack of familiarity with English

Strategies for ethical writing

Avoid getting yourself in a situation where you're pressed for time

- allow time for thorough research
- allow time for revision
- allow time for feedback if appropriate

Strategies for ethical writing

NEVER copy and paste material from other sources into your working document

Strategies for ethical writing

If you struggle at all with writing, develop your abilities:

- read (not just the academic literature)
- listen attentively to articulate broadcasting or lectures
- practice writing (letters, diary, etc)
- get feedback from those with a good command of English
- take workshops (eg, GPS, Writing Centre)

Strategies for ethical writing

- Thoroughly review the literature
- Find, read and understand any references you're considering citing
- Double check the accuracy of your references
- When writing or making notes, immediately reference others' ideas, information, etc
- Separate your literature research from your writing
- Read the document and ask:
 - unless cited appropriately, "Are these ideas and words my own?"
 - "Did I bend over backwards to show how maybe I'm wrong?"
 - "Can others replicate this?" (scientific papers)
 - "Will others understand this easily?"

References, Resources

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References, Resources

York University Academic Integrity Tutorial:

30-40 minute self study tutorial, followed by a self-test to assess comprehension.

Available at: www.yorku.ca/tutorial/academic_integrity/how.html

Style manuals:

APA Style

- *Publication Manual of the American Psychological Association*. 6th ed. Washington, DC: American Psychological Association, 2010. Official APA style guide.

MLA Style

- *MLA Handbook for Writers of Research Papers*. 7th ed. New York: Modern Language Association of America, 2009. A somewhat simplified guide, adequate for undergraduate and most other research papers.
- *MLA Style Manual and Guide to Scholarly Publishing*. 3rd ed. New York: Modern Language Association of America, 2008. For graduate students, scholars, and professional writers (more depth on copyright, legal issues, and writing theses, dissertations, and scholarly publishing).

Turabian Style

- Turabian, Kate L. *A Manual for Writers of Term Papers, Theses, and Dissertations*, 6th edition. Chicago: University of Chicago Press, 1996.

Chicago Style

- *The Chicago Manual of Style*. 15th ed. Chicago: University of Chicago Press, 2003.